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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/052,160 | 01/16/2002 | Woong K. Yoon | 4366-52 | 1038 |

7590 05/23/2003

Bradley M. Knepper
SHERIDAN ROSS P.C.
1560 Broadway, Suite 1200
Denver, CO 80202-5141

EXAMINER

OMGBA, ESSAMA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3726

DATE MAILED: 05/23/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,160

Applicant(s)

YOON, WOONG K.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 17-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- ☐ Interview Summary (PTO-413) Paper No(s) ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: "body portion 108" in line 19 of page 7 should read --body portion 110--.

Appropriate correction is required.

Claim Objections

Claims 1-10 and 17-21 are objected to because of the following informalities: in claims 1-5 and 7, each occurrence of "latching" should read --locking-- in order to use consistent language through out the specification and the claims, also in line 10 of claim 1, line 2 of claim 2, line 4 of claim 8 and line 2 of claim 10, "a" should be deleted, and in claim 10, line 3, "a" should read --the-- in order to make it clear that Applicant is referring to the previously recited "fastener member", in claim 17, line 12, "first" should read --second--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 recites the limitation "said spacer insert" in line 11. There is insufficient antecedent basis for this limitation in the claim.

In claim 7, the phrase "a distance between a locking surface of a first of said latching assemblies is a distance equal to an integer multiple of said first distance from a locking surface of a second of said latching assembly" is not clear. The examiner has interpreted that phrase as meaning "a distance between a locking surface of a first of said locking assemblies from a locking surface of a second of said locking assemblies is a distance equal to an integer multiple of said first distance."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Morris (US Patent 4,012,155).

With regards to claim 1, Morris discloses a universal snap-fit spacer system comprising a fastener member 10 comprising a body portion 28, a resilient portion 20 and a locking assembly 23, wherein the resilient portion biases the locking assembly into a first position, a spacer element 12 comprising an interior bore 42, a plurality of recesses 45, 46 formed in the interior bore, wherein the locking assembly of the fastener member may be received in one of the plurality of recesses to prevent the fastener member from

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being withdrawn from the spacer element, see column 3, lines 62-68, column 4, lines 1-68, column 5, lines 1-5 and figures 2-4.

For claims 2 and 3, see figure 4.

For claim 4, see figure 3.

For claim 5, see column 4, lines 47-53 and figure 2.

For claim 6, see figures 3 and 4.

For claim 9, see figure 2.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui (US Patent 4,640,639).

For claims 11 and 13, Matsui discloses a method for interconnecting objects comprising interconnecting a spacer element 14 to a first object 40, interconnecting a fastener member 24 to the spacer element, interconnecting a second fastener member 24 to the spacer element 14 and interconnecting the second fastener member to a second object 40, wherein the first and second object are fastened to one another and the first and second objects are first and second circuit boards, see column 3, lines 47-60. Although the fastener element of Matsui is not a snap fit fastener, however Applicant should note

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that it is within the general knowledge of one of ordinary skill in the art to have made the fastener element of Matsui a snap fit fastener in order to simplify the assembly.

Applicant should also note that the sequence of the steps in interconnecting the objects lends no patentable weight to the method being claimed.

For claim 12, see column 3, lines 61-68.

For claim 15, see column 2, lines 38-55.

8. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui in view of Coules (US Patent 3,836,703).

Matsui discloses a method of interconnecting circuit boards as shown above except for the first circuit board being of a first thickness and the second circuit board being of a second thickness. However it is known to interconnect circuit boards of different thickness as attested by Coules, see figure 4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that interconnecting circuit boards of different thicknesses is well within the general knowledge of one of ordinary skill in the art as taught by Coules.

Allowable Subject Matter

9. Claims 7, 8 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claims 17-21 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on (703) 308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3580 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

eo 
May 18, 2003

